UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 UNDER
THE SECURITIES EXCHANGE ACT OF 1934

For the month of January 2019
Commission File Number
001-37846

CELLECT BIOTECHNOLOGY LTD.

(Translation of registrant's name into English)

23 Hata'as Street
Kfar Saba, Israel 44425
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b)(7): ☐

The first paragraph and the "Forward Looking Statements" of the press release attached to this Form 6-K is incorporated by reference into the registrant's Registration Statements on Form S-8 (Registration No. 333-214817, 333-220015 and 333-225003) and on Form F-3 (Registration No. 333-219614 and 333-212432).

Attached hereto as Exhibit 99.1 and incorporated by reference herein is a press release issued by the Registrant entitled “Completion of Manufacturing of Clinical Grade FasL Enables Cellect to Expedite U.S. Clinical Programs into Multiple Studies.”

Exhibit

99.1	Press Release, dated January 28, 2019

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Cellect Biotechnology Ltd.

By: /s/ Eyal Leibovitz
Name: Eyal Leibovitz
Title: Chief Financial Officer

Date: January 28, 2019

Completion of Manufacturing of Clinical Grade FasL Enables Cellect to Expedite U.S. Clinical Programs into Multiple Studies

Supports Collaborations with Cell and Gene Therapy Companies

Tel Aviv, Israel – January 28, 2019 – Cellect Biotechnology Ltd. (Nasdaq: APOP), a developer of a novel stem cell production technology, today announced it has concluded the scale-up development and manufacturing of clinical grade FasL in collaboration with its outsourced supplier. Based on its process and the results of the ongoing clinical trial, the Company has scaled up manufacturing of FasL for hundreds of personal batches fully scalable to hundreds of thousands of batches for clinical and collaborative purposes. The Company expects to form an alliance of clinical and commercial cell therapy centers using the ApoGraft™ technology.

The FasL protein is central to Cellect's technology of cell separation and functional selection of stem cells and is the key active ingredient in Cellect's ApoGraft™ and Apotainer product lines. Cellect's FasL based technology is intended to enable achieving stem cells for any indication in quality, quantity and at a competitive price; and is expected to improve the safety and efficacy of stem cell therapies and regenerative medicine.

Dr. Shai Yarkoni, Cellect CEO comments: "the proven scalability of our clinical grade production of FasL is a major step forward and opens the door for multiple global clinical activities and collaborations, as well as supporting our existing and planned global partners. This is an important milestone to becoming the standard enabling technology for the enrichment of stem cells and manufacturing of any adult stem cell-based products for companies developing stem cell therapies and for researchers and academia engaged in adult stem cell research. We are committed to enabling a multi-billion global market over the next five years while positioning Cellect towards potentially meeting commercial demand for millions of patients worldwide in need of stem cell therapy, as well as providing raw materials for stem cell research centers and the biobanking industry."

About Regenerative Medicine and Cell Therapy

Regenerative medicine is a novel approach using cells and tissues to replace or regenerate human cells, tissues or organs in a wide variety of medical indications. This could be achieved by either stimulating the body to use its own repair mechanisms to heal tissues or organs, or by growing tissues and organs in the laboratory and transplanting them into the patient.

Stem cells play a major role in the achievement of the extraordinary potential results in regenerative medicine. In cell therapies they can be injected to reconstitute the entire blood system in bone marrow transplantations. Alternatively, their injection can supply the necessary biologically active molecules to induce the patients' own cells to regain normal function, as used in immunomodulation therapy. In tissue engineering, where entire organs like the retina, bone, cartilage or the skin may be replaced, stem cells are the starting material for the growth of such tissues in the laboratory. Moreover, in tissue engineering an artificial system might be created by inducing cells to perform certain biochemical functions lost due to disease (e.g., artificial pancreas or liver).

Regenerative medicine using cellular therapy in combination with new technologies like tissue engineering and gene transfer can be used in a virtually unlimited number of indications. The most frequently used cells are hematopoietic stem cells (HSC) due to their capability to reproduce the entire blood system in blood cancer and hematological disorders. Mesenchymal stem cells, which have the capability to differentiate to a large number of tissue types like bone, cartilage, fat, heart muscle and more, are of growing importance. Potential applications of cell therapies include treating cancers, autoimmune disease, urinary problems and infectious disease, rebuilding damaged cartilage in joints, repairing spinal cord injuries, improving a weakened immune system, and helping patients with neurological disorders.

About Cellect Biotechnology Ltd.

Cellect Biotechnology (NASDAQ: APOP) has developed a breakthrough technology for the selection of stem cells from any given tissue to any application of those cells. The technology aims to improve a variety of cell-based therapies.

The Company's technology is expected to provide research institutes, hospitals and pharma companies with the tools to rapidly produce stem cells in quantity and quality allowing cell-based treatments and procedures in a wide variety of applications in regenerative medicine. The Company's ongoing clinical trial is treating patients undergoing bone marrow transplantations in cancer treatment.

Forward Looking Statements

This press release contains forward-looking statements about the Company's expectations, beliefs and intentions. Forward-looking statements can be identified by the use of forward-looking words such as "believe", "expect", "intend", "plan", "may", "should", "could", "might", "seek", "target", "will", "project", "forecast", "continue" or "anticipate" or their negatives or variations of these words or other comparable words or by the fact that these statements do not relate strictly to historical matters. For example, forward-looking statements are used in this press release when we discuss Cellect's intent regarding future production capability. These forward-looking statements and their implications are based on the current expectations of the management of the Company only and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. In addition, historical results or conclusions from scientific research and clinical studies do not guarantee that future results would suggest similar conclusions or that historical results referred to herein would be interpreted similarly in light of additional research or otherwise. The following factors, among others, could cause actual results to differ materially from those described in the forward-looking statements: the Company's history of losses and needs for additional capital to fund its operations and its inability to obtain additional capital on acceptable terms, or at all; the Company's ability to continue as a going concern; uncertainties of cash flows and inability to meet working capital needs; the Company's ability to obtain regulatory approvals; the Company's ability to obtain favorable pre-clinical and clinical trial results; the Company's technology may not be validated and its methods may not be accepted by the scientific community; difficulties enrolling patients in the Company's clinical trials; the ability to timely source adequate supply of FasL; risks resulting from unforeseen side effects; the Company's ability to establish and maintain strategic partnerships and other corporate collaborations; the scope of protection the Company is able to establish and maintain for intellectual property rights and its ability to operate its business without infringing the intellectual property rights of others; competitive companies, technologies and the Company's industry; unforeseen scientific difficulties may develop with the Company's technology; and the Company's ability to retain or attract key employees whose knowledge is essential to the development of its products. Any forward-looking statement in this press release speaks only as of the date of this press release. The Company undertakes no obligation to publicly update or review any forward-looking statement, whether as a result of new information, future developments or otherwise, except as may be required by any applicable securities laws. More detailed information about the risks and uncertainties affecting the Company is contained under the heading "Risk Factors" in Cellect Biotechnology Ltd.'s Annual Report on Form 20-F for the fiscal year ended December 31, 2017 filed with the U.S. Securities and Exchange Commission, or SEC, which is available on the SEC's website, www.sec.gov, and in the Company's periodic filings with the SEC.

Contact
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